

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for ~~data type preserving encryption of~~ encrypting ~~characters from~~ a data element in a relational database, ~~wherein said database comprises a plurality of data elements of at least one type, and each data element comprises a string of at least one character, comprising the steps of~~ the method comprising:

reading a data the type of a first data element ~~which is to be encrypted;~~

interpreting said data type ~~in order~~ to form a restricting character set ~~for each character of said data element; and~~

encrypting each character of said first data element into an encrypted character selected from using said ~~restricted~~ restricting character set ~~to control the encryption process to only create encrypted characters included said restricted character set.~~

2. (previously presented) A method according to claim 1, comprising the further step of: arranging one or more character sets in a pattern for a data type.

3. (previously presented) A method according to claim 1 or 2, where the encryption results in a data element having the same number of characters as the unencrypted data element.

4. (previously presented) A method according to claim 1, comprising the further steps of: converting each character to an index value; and adding a varying value to each index value before encryption.

5. (currently amended) A method according to claim 4, wherein the varying ~~integer~~ value is obtained by the steps of:

creating an initial value by hashing the encryption key;

adding adjacent index values pairwise from the left to the right using said initial value when adding the leftmost character.

6. (previously presented) A method according to claim 1, wherein the encryption is performed using the DES algorithm in cipher mode.

7. (currently amended) A system for ~~data type preserving encryption of~~ encrypting characters from a data element in a relational database, ~~which database comprises a plurality of data elements of at least one type, and each data element comprises a string of at least one character,~~ the system comprising:

reading means for reading ~~the~~ a data type of a first data element ~~which is to be encrypted;~~

interpretation means for interpreting said data type ~~in order~~ to form a restricting character set ~~for each character of said data element;~~ and

encryption means for encrypting each character of said first data element into an encrypted character using selected from said ~~restricted~~ restricting character set ~~to control said encryption means to only create encrypted characters included said restricting character set.~~

8. (new) A method according to claim 1, further comprising:

storing said encrypted characters in a second data element in said relational database.

9. (new) A method according to claim 8, wherein said first data element and said second data element are the same data element.

10. (new) A system according to claim 7, further comprising:

storing means for storing said encrypted characters in a second data element in said relational database.

11. (new) A system according to claim 10, wherein said first data element and said second data element are the same data element.